



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,892	07/30/2003	Stephen E. Terry	I-2-0377.1US	7949

24374 7590 06/13/2006

VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

DANIEL JR, WILLIE J

ART UNIT	PAPER NUMBER
----------	--------------

2617

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/630,892	Applicant(s) TERRY, STEPHEN E.	
	Examiner Willie J. Daniel, Jr.	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 20 December 2006. **Claims 1-3** and **12-14** are now pending in the present application.

Claim Rejections - 35 USC § 112

2. The 112 rejection applied to the claims is withdrawn, as the proposed claim corrections are approved.

Claim Objections

3. **Claims 2-3** and **13-14** are objected to because of the following informalities:
 - a. Claim 2 recites the limitation "...claim 1 wherein...". The Examiner suggests, for example, "...claim 1, wherein...".
 - b. Claim 3 recites the limitation "...claim 2 wherein...". The Examiner suggests, for example, "...claim 2, wherein...".
 - c. Claim 12 recites the limitation "...claim 12 wherein...". The Examiner suggests, for example, "...claim 12, wherein...".
 - d. Claim 14 recites the limitation "...claim 13 wherein...". The Examiner suggests, for example, "...claim 13, wherein...".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Applicant's Admitted Prior Art (hereinafter Prior Art) in view of **Le et al.** (hereinafter Le) (US 6,556,820 B1).

Regarding **claim 1**, Prior Art discloses in a cellular network which reads on the claimed “wireless communication system” including a plurality of wireless transmit/receive units (WTRUs), a method of paging a plurality of WTRU users belonging to a group paging (GP) which reads on the claimed “paging group” (see pg. 1, [0007-0008]; Fig. 1), the method comprising:

activating a group paging (GP) which reads on the claimed “point-to-multipoint (PtM) service” for a WTRUs within a PtM service user group (see Fig. 1), where the user equipment (UE) can be paged during group paging;

to synchronize WTRU specific paging occasions (105) with WTRU user group paging occasions (110) (see pg. 1, [0007-0008]; pg. 4, [0020, 0023]; Fig. 1), where the unique UE identity is associated with the point-to-point (UP) and point-to-multipoint (GP) paging which are synchronized within the frame of the channel (communication path). The frame has identifiers UP and GP that are equally separated by 9 slots until the next UP and GP to provide synchronization for the paging occasion. ;

determining whether a paging occasion is associated with a PtM service or a UE specific paging occasion (105) which reads on the claimed “point-to-point (PtP) service” (see Fig. 1), where the PtP service (105) is determined; and

if the paging occasion is determined to be associated with a PtM service and a predetermined maximum number of users associated with the paging occasion is exceeded, generating a plurality of subgroup paging identities, wherein each subgroup paging identity is associated with a particular paging subgroup within the PtM service user group, a particular paging channel and a particular paging occasion (see step (c) above), since the PtP service was determined in step (c), step (d) is never implemented as provided according to the alternative language “if” recited in step (d). Prior Art does not specifically disclose having the feature assigning a new temporary user specific identity to each of the WTRUs in response to activating the PtM service. However, the examiner maintains that the feature assigning new temporary user specific identity to each of the WTRUs in response to activating the PtM service was well known in the art, as taught by Le.

In the same field of endeavor, Le discloses the feature assigning temporary mobile subscriber identity (TMSI) which reads on the claimed “new temporary user specific identity” to each of the WTRUs in response to activating the PtM service (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile is provided a TMSI which is used in a paging group.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Prior Art and Le to have the feature assigning new temporary user specific identity to each of the WTRUs in response to

activating the PtM service, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Regarding **claim 2**, Prior Art discloses the method of claim 1, wherein a physical paging channel is selected from a list of paging channels by determining a selected paging channel number based on a identity (e.g., unique UE identity) mod K, where K is the number of physical paging channels that exist with a cell (see pg. 2, [0009-0010]; pg. 4, [0023]; pg. 1, [0007-0008]; Fig. 1), where the UE selects a physical paging channel. Prior Art does not specifically disclose having the feature temporary identity. However, the examiner maintains that the feature temporary identity was well known in the art, as taught by Le.

Le discloses the feature temporary mobile subscriber identity (TMSI) which reads on the claimed “temporary identity” (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile telephone is provided a TMSI.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Prior Art and Le to have the feature temporary identity, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Regarding **claim 3**, Prior Art discloses the method of claim 2, wherein the a unique radio frame number identifies a particular paging occasion on the selected physical paging channel, the unique radio frame number being determined as a function of a identity div K and a discontinuous reception (DRX) cycle length (see pg. 4, [0020]; Fig. 1), where the frame has identifiers UP and GP and the identity (e.g., unique UE identity) is used to determine the frame number. Prior Art does not specifically disclose having the feature

temporary identity. However, the examiner maintains that the feature temporary identity was well known in the art, as taught by Le.

Le discloses the feature temporary mobile subscriber identity (TMSI) which reads on the claimed “temporary identity” (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile telephone is provided a TMSI.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Prior Art and Le to have the feature temporary identity, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Regarding **Claim 12**, Prior Art discloses a cellular network which reads on the claimed “wireless communication system” for paging a plurality of wireless transmit/receive unit (WTRU) users belonging to a group paging (GP) which reads on the claimed “paging group” (see pg. 1, [0007-0008]; Fig. 1), the system comprising:

means (e.g., network or paging mechanisms) for activating a group paging (GP) which reads on the claimed “point-to-multipoint (PtM) service” for the WTRUs within a PtM service user group (see Fig. 1), where the user equipment (UE) can be paged during group paging;

to synchronize WTRU specific paging occasions (105) with WTRU user group paging occasions (110) (see pg. 1, [0007-0008]; pg. 4, [0020, 0023]; Fig. 1), where the unique UE identity is associated with the point-to-point (UP) and point-to-multipoint (GP) paging which are synchronized within the frame of the channel (communication path). The frame has identifiers UP and GP that are equally separated by 9 slots until the next UP and GP to

provide synchronization for the paging occasion. ;

means (e.g., network or paging mechanisms) for determining whether a paging occasion is associated with a PtM service or a UE specific paging occasion (105) which reads on the claimed “point-to-point (PtP) service” (see Fig. 1), where the PtP service (105) is determined; and

means for generating a plurality of subgroup paging identities if the paging occasion is determined to be associated with a PtM service and a predetermined maximum number of users associated with the paging occasion is exceeded, wherein each subgroup paging identity is associated with a particular paging subgroup within the PtM service user group, a particular paging channel and a particular paging occasion (see step (c) above), since the PtP service was determined in step (c), step (d) is never implemented as provided according to the alternative language “if” recited in step (d). Prior Art does not specifically disclose having the feature means for assigning new temporary user specific identity to each of the WTRUs in response to activating the PtM service. However, the examiner maintains that the feature means for assigning new temporary user specific identity to each of the WTRUs in response to activating the PtM service was well known in the art, as taught by Le.

Le further discloses the feature means (e.g., MSC) for assigning temporary mobile subscriber identity (TMSI) which reads on the claimed “new temporary user specific identity” to each of the WTRUs in response to activating the PtM service (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile is provided a TMSI which is used in a paging group.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Prior Art and Le to have the feature means for assigning new temporary user specific identity to each of the WTRUs in response to activating the PtM service, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Regarding **Claim 13**, Prior Art discloses the method of claim 12, wherein a physical paging channel is selected from a list of paging channels by determining a selected paging channel number based on a identity (e.g., unique UE identity) mod K, where K is the number of physical paging channels that exist with a cell (see pg. 2, [0009-0010]; pg. 4, [0023]; pg. 1, [0007-0008]; Fig. 1), where the UE selects a physical paging channel. Prior Art does not specifically disclose having the feature temporary identity. However, the examiner maintains that the feature temporary identity was well known in the art, as taught by Le.

Le discloses the feature temporary mobile subscriber identity (TMSI) which reads on the claimed “temporary identity” (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile telephone is provided a TMSI.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Prior Art and Le to have the feature temporary identity, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Regarding **Claim 14**, Prior Art discloses the method of claim 13, wherein the a unique radio frame number identifies a particular paging occasion on the selected physical paging channel, the unique radio frame number being determined as a function of a identity div K and a discontinuous reception (DRX) cycle length (see pg. 4, [0020]; Fig. 1), where the

frame has identifiers UP and GP and the identity (e.g., unique UE identity) is used to determine the frame number. Prior Art does not specifically disclose having the feature temporary identity. However, the examiner maintains that the feature temporary identity was well known in the art, as taught by Le.

Le discloses the feature temporary mobile subscriber identity (TMSI) which reads on the claimed “temporary identity” (see col. 7, lines 45-48, 56-62; col. 12, lines 9-43; Figs. 3 “ref. 7”, 7 “ref. 728”), where the mobile telephone is provided a TMSI.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Prior Art and Le to have the feature temporary identity, in order to have a scheme for providing mobility management for terminals with multiple subscriptions, as taught by Le (see col. 3, lines 2-8).

Response to Arguments

5. Applicant's arguments filed 20 December 2006 have been fully considered but they are not persuasive.

The Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

6. Regarding applicant's comment of claims 1 and 12 on pg. 5, 2nd paragraph, "...*common paging channel* is disclosed, then a *common channel* is disclosed, the Examiner respectfully disagrees. The Examiner applied the 112 rejection in the office action mailed on 19 October 2005 to indicate that the specification (see pg. 6, [0035-0036]; Fig. 3) **clearly** supported the language "...common **paging** channel..." instead of a "...common channel...". According to the current amended claim language, both claims 1 and 12 have been broadened by deleting the claim limitation "..., on a common channel..." from line 9 of claim 1 and line 8 of claim 12. The Examiner suggests that the applicant reinsert the deleted claim limitation "..., on a common channel..." by modifying to recite the limitation "..., on a common **paging** channel...". Also, see item 3 of office action mailed on 19 October 2005.

7. Regarding applicant's comment of claims 1 and 12 on pg. 6, 1st paragraph, the Examiner respectfully disagrees. According to the current amended claim language, both claims 1 and 12 have been broadened by deleting the claim limitation "..., the temporary user specific identities being used..." from lines 8-9 of claim 1 and lines 7-8 of claim 12. The Examiner suggests that the applicant reinsert the deleted claim limitation "..., the temporary user specific identities being used..." by modifying to recite the limitation "..., the **new**

Art Unit: 2617

temporary user specific **identity** being used...". Also, see item 6 of office action mailed on 19 October 2005.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WJD,JR
08 June 2006


CHARLES APPIAH
PRIMARY EXAMINER